

ABSTRACT

A dual damascene process flow for forming interconnect lines and vias in which at least part of the via (116) is etched prior to the trench etch. A low-k material such as a thermoset organic polymer is used for the ILD (106) and IMD (110). After the at least partial via etch, a BARC (120) is deposited over the structure including in the via (116). Then, the trench (126) is patterned and etched. Although at least some of the BARC (120) material is removed during the trench etch, the bottom of the via (116) is protected.

100 900 800 700 600 500 400 300 200 100 0